



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,532	03/31/2004	Yonosuke Aoki	IKW-007	9913
959	7590	10/31/2006		
LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER LOPEZ, MICHELLE	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,532

Applicant(s)

AOKI, YONOSUKE

Examiner

Michelle Lopez

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 2 and 8-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/06 4/7/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 9/26/06.
2. Claims 13-14 have been canceled.
3. New claims 15-16 have been added.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-7, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weilenmann (4,478,293) in view of Allbright 3,024,770.

Weilenmann discloses a power tool comprising a tool bit, a tool body to which the tool bit is coupled, an actuating mechanism that drives the tool bit linearly by pressure fluctuations, wherein the actuating mechanism has a driving motor, a motion converting mechanism that converts a rotating output to a linear motion, a piston, a striker, a first chamber between the striker and the piston, and a second chamber in an opposite side of the first chamber, and a vibration reducer having a cylindrical body 11 that houses a weight 12 that reciprocates under a biasing force of an elastic element, but does not specifically disclose wherein the weight being driven by pressure fluctuations caused in the second chamber when the piston reciprocates.

Allbright teaches the concept of a fluid-pressure operated ram comprising a cylinder 1 having a first chamber at the vicinity of 5 and a ram piston 2, a second chamber at the vicinity of 9,10, and a dynamic vibration reducer having a weight via a damper piston 12, wherein reciprocation of

Art Unit: 3721

the ram piston in the first chamber caused pressure fluctuations in the second chamber which drives the damper weight. It would have been obvious to one having ordinary skill in the art to have modified Weilenmann's first and second chamber to caused pressure fluctuations as taught by Allbright in order to drive the weight and damp the vibrations caused by the operation of the power tool.

With respect to claims 3-5 and 7, Allbright also shows wherein when a load associated with a predetermined power tool operation is applied to the tool bit, the weight is driven by means of fluctuating pressure developed in the second chamber, while when a load associated with a predetermined power tool operation is not applied to the tool bit, the weight is prevented from being driven (claim 3); and wherein the dynamic reducer vibration includes a first actuating chamber 11 and a second actuating chamber at the vicinity of 18 that are defined on opposites sides of the weight within the body, wherein fluctuating pressure developed in the second chamber is introduced into the first actuating chamber and the second actuating chamber can communicate with the outside via 8 (claim 4); and wherein the second chamber is communicate to the outside via 8 (claim 5); an actuating mechanism with a piston 2 and a cylinder 1 that slide relative to each other in an axial direction of a tool bit, wherein the tool bit reciprocates in its axial direction by the action of an air spring which is caused by relative movement of the piston and the cylinder, and wherein the weight is disposed along a circumferential surface of the cylinder (claim 7).

With respect to claim 6, Weilenmann discloses wherein the tool bit comprises a hammer bit that performs a predetermined hammer operation by applying a linear impact force.

With respect to claim 15, Weilenmann discloses wherein the dynamic vibration reducer has a body to house the weight, an elastic element connecting the weight with the body, first and second actuation chambers respectively provided in the opposite sides of the weight, the first and second actuation chambers being isolated with each other, wherein the weight is linearly moved by introducing pressure fluctuations while the weight being biased by the elastic element, but does not specifically disclose wherein the pressure fluctuations are caused in the second chamber in an anti-phased manner with respect to pressure fluctuations caused in the first chamber when the piston reciprocates. Allbright teaches wherein reciprocation of a piston 2 in a first chamber at the vicinity of 5 caused pressure fluctuations in a second chamber at the vicinity of 9,10 to linearly move a weight. It would have been obvious to one having ordinary skill in the art to have modified Weilenmann's first and second chamber to direct pressure fluctuations to a dynamic vibration reducer, i.e. a weight, as taught by Allbright in order to linearly move the weight and damping any vibration caused during the operation of the tool.

Also, with respect to claims 15-16, as broadly interpreted, it is deemed that Allbright teaches wherein the pressure fluctuations in the second chamber is opposite with respect to the pressure fluctuations in the first chamber when the piston reciprocates.

Allowable Subject Matter

Claims 2 and 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect have been considered but are moot in view of the new ground(s) of rejection.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

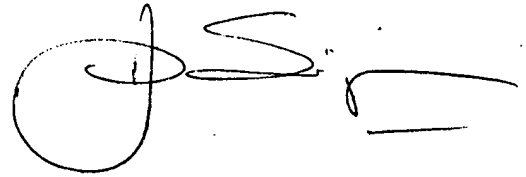
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Lopez whose telephone number is 571-272-4464. The examiner can normally be reached on Monday - Thursday: 8:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3721

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML

A handwritten signature in black ink, consisting of a large, stylized 'J' or 'G' followed by a series of loops and a horizontal line at the end.